

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing requested amendments and in view of the reasons that follow. Applicant respectfully asserts that entry of the requested amendments do not present new issues requiring further consideration or search and would place the application in condition for allowance. Alternatively, entry of the requested amendments would place the application in better form for consideration on appeal.

Claim 27 stands objected to for a minor informality. Claims 17 and 26 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent Publication No. 2001/0018995 to Uegane. Claims 18, 20 and 27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Uegane in view of U.S. Patent No. 2,297,046 to Bourne. Claims 19, 21 and 28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Uegane in view of GB 2,365,066 to Coulon. Claims 19, 21 and 28 also stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Uegane in view of U.S. Patent No. 6,112,514 to Burdisso. Claim 23 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Uegane in view of Bourne in further view of EP 0445431 to DeLank. Claim 24 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Uegane in view of Coulon in further view of DeLank. Claim 25 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Uegane in view of Burdisso in further view of DeLank.

By this amendment, claim 27 has been amended according to the Examiner's helpful suggestion found on page 2 of the outstanding Office Action. Thus, withdrawal of the objection to claim 27 is respectfully requested. Claims 17 has been amended to more clearly define the position of the tubular member within the muffler. This amendment essentially adds a limitation to independent claim 17 that was previously recited in dependent claim 18, and thus does not present new issues. Claim 18 has been amended accordingly and claims 19-26 and 28 remain unchanged in the application.

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s)

remain under examination in the application, is presented, with an appropriate defined status identifier. Thus, claims 17-28 are presently pending in this application for consideration.

Applicant respectfully submits that the claims are patentably distinguishable over the cited references as required by §§ 102 and 103. Applicant further submits that the cited references, whether considered alone or in any combination, fail to disclose Applicant's claimed muffler that is configured to discharge exhaust, including ***a portion of the tubular member arranged on an upstream end of the muffler in a direction of exhaust flow and a resonator set formed of the portion of the tubular member*** as recited in independent claim 17. By contrast, the cited references fail to teach or suggest this claimed arrangement. Accordingly, independent claim 17 and claims dependent therefrom are patentably distinguishable over the cited references. This distinction will be further described below.

THE CLAIMS DISTINGUISH OVER THE CITED REFERENCES

The presently claimed invention is directed to a muffler that is configured to discharge exhaust from a machine having one of an engine and a compressor. The muffler includes *inter alia*, an outer muffler shell, a first and a second exhaust tube, a tubular member, and a resonator set. The tubular member is formed inside the muffler and configured to attenuate acoustic energy of a first frequency band. The resonator set is configured to attenuate acoustic energy of a second frequency band which is different from the first frequency band and modulates the first frequency band. The second exhaust tube discharges exhaust in the space inside the muffler shell to the atmosphere. According to one embodiment of the present invention as best illustrated in Figs. 21-23 and recited in amended independent claim 17, ***a portion of the tubular member is arranged on an upstream end of the muffler in a direction of exhaust flow and a resonator set is formed of the portion of the tubular member***. The cited references lack any disclosure of this claimed arrangement.

The primary reference Uegane is directed to an exhaust muffler having a control valve provided in a muffler main body or on an exhaust gas discharge pipe (Paragraph [0002], lines 2-5). As illustrated in Fig. 2, the exhaust muffler M includes a main body 26 partitioned into first silencing chamber 29, second silencing chamber 30 and third silencing chamber 31 with

a first baffle 27 and a second baffle 28 defining the chambers (Paragraph [0033], lines 6-11). A front exhaust pipe 14 is provided through the second and third silencing chambers 30 and 31 and terminates at its downstream end as an exhaust gas induction pipe 32 into the first silencing chamber 29 (Paragraph [0034], lines 2-5).

Applicant respectfully submits that the subject matter claimed therein patentably distinguishes over Uegane. Specifically, amended independent claim 17 includes ***a portion of the tubular member arranged on an upstream end of the muffler in a direction of exhaust flow***. Thus, contrary to the Examiner's assertion found on page 3 of the outstanding Office Action, Uegane fails to disclose this claimed feature. As discussed above and as shown in Fig. 2 of Uegane, the gas induction pipe 32 is formed at a downstream end of the exhaust pipe 14. At best, the gas induction pipe 32 is formed midway of the muffler main body 26. This shortcoming of Uegane defines a patentable first deficiency.

In addition, Uegane also fails to teach or suggest ***a resonator set formed of the portion of the tubular member*** arranged on the upstream end of the muffler. As clearly illustrated in Fig 2 of Uegane, the second and third silencing chambers 30 and 31 are independent chambers and not formed of the front exhaust pipe 14. This is evidenced by the fact that exhaust gases inducted from the front exhaust pipe 14 do not directly flow into the third silencing chamber 31. The only way exhaust gases reach the third silencing chamber is through a first communication pipe 34, having its ends provided between the second and third silencing chambers (Paragraph [0035], lines 1-6). This shortcoming of Uegane defines a patentable second deficiency.

In light of the foregoing, it is clear that Uegane fails to teach or suggest each of the features of independent claim 17. Moreover, Applicant respectfully submits that none of Bourne, Coulon, Burdisso, and DeLank cures the deficiencies of Uegane. As a result, no combination of Uegane, Bourne, Coulon, Burdisso, and/or DeLank teaches or suggests the muffler recited in independent claim 17. Accordingly, Uegane, Bourne, Coulon, Burdisso, and/or DeLank, whether considered individually or collectively, cannot be said to anticipate or render obvious the subject matter recited in independent claim 17. Thus, independent claim 17 is allowable.

Since independent claim 17 is allowable claims dependent therefrom, namely claims 18-28 are allowable by virtue of their direct or indirect dependence from allowable independent claim 17 and for containing other patentable features. Further remarks regarding the asserted relationship between any of the claims and the cited references are not necessary in view of their allowability. Applicant's silence as to the Office Action's comments is not indicative of being in acquiescence to the stated grounds of rejection.


Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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